

CLAIMS

1. A lipid-regulating agent, which comprises a cyclic tetrasaccharide, represented by the formula of cyclo { $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ }, and/or its saccharide-derivative(s) as an effective ingredient(s).

2. The lipid-regulating agent of claim 1, where one or more substances selected from the group consisting of a non-reducing saccharide, reducing saccharide, cyclodextrin, water-soluble polysaccharide, polyphenol, spice, acidifier, seasoning, alcohol, organic acid, organic acid salt, inorganic salt, emulsifier, flavor, and coloring are incorporated into said cyclic tetrasaccharide, represented by the formula of cyclo { $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ }, and/or said saccharide-derivative(s).

3. The lipid-regulating agent of claim 2, wherein said non-reducing saccharide is one or more saccharides selected from the group consisting of maltitol,  $\alpha,\alpha$ -trehalose, and a saccharide-derivative of  $\alpha,\alpha$ -trehalose.

4. The lipid-regulating agent of claim 2 or 3, wherein said polyphenol is one or more substances selected from the group consisting of flavonoids such as hesperetin, naringenin, querucetin, hesperidin, enzymatically-modified hesperidin, naringin, enzymatically-modified naringin, rutin, enzymatically-modified rutin, and proanthocyanidin; and catechins such as catechin and epigallocatechin.

5. The lipid-regulating agent of any one of claims 1 to 4,

which comprises said cyclic tetrasaccharide, represented by the formula  
of cyclo { $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6)-  
 $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ }, and/or said  
saccharide-derivative(s) in a total amount of 0.1% (w/w) or higher,  
5 on a dry solid basis.

6. A composition for regulating the amount of lipids, which  
comprises the lipid-regulating agent of any one of claims 1 to 5.

7. The composition for regulating the amount of lipids of  
claim 6, which comprises a cyclic tetrasaccharide, represented by the  
10 formula of cyclo  
{ $\rightarrow$ 6)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6)-  
 $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ }, and/or said  
saccharide-derivative(s) in a total amount of 0.01% (w/w) or higher,  
on a dry solid basis.

15 8. The lipid-regulating agent or the composition for  
regulating the amount of lipids of any one of claims 1 to 7, where the  
regulation means the regulation the amount of lipids in said living  
body.

9. The lipid-regulating agent or the composition for  
20 regulating the amount of lipids of claim 8, wherein said lipid in said  
living body is one or more lipids selected from the group consisting  
of free fatty acids, simple lipids (homolipids), compound lipids  
(heterolipids), lipoproteins, and free cholesterol.

10. The lipid-regulating agent or the composition for  
25 regulating the amount of lipids of claim 9, wherein said lipids in said  
living body exist in one or more tissues or organs selected from the  
group consisting of blood, subcutaneous tissue, intracutaneous tissue,  
testis, kidney, heart, liver, and digestive tract.

11. The lipid-regulating agent or the composition for regulating the amount of lipids of claim 9 or 10, wherein said simple lipids (homolipids) are triglycerides.

12. The lipid-regulating agent or the composition for  
5 regulating the amount of lipids of any one of claims 1 to 11, which  
is used for improving a lifestyle-related disease.

13. The lipid-regulating agent or the composition for  
regulating the amount of lipids of claim 12, wherein said  
lifestyle-related disease is one or more diseases selected from the  
10 group consisting of hyperlipemia, arteriosclerosis, angiostenosis,  
vascular blockage, hypertension, thrombosis, angina, cardiac infarction,  
cardiac incompetence, brain infarction, fatty liver, cirrhosis, adiposis,  
constipation, colon cancer, and diabetes.

14. The lipid-regulating agent or the composition for  
15 regulating the amount of lipids of any one of claims 1 to 13, which  
is used for one or more objects of inhibiting the increase of weight,  
decreasing total cholesterol, decreasing LDL-cholesterol, regulating  
the metabolism of lipoproteins, inhibiting the accumulation of lipids,  
regulating the metabolism of bile acids, and improving the intestinal  
20 function.

15. The lipid-regulating agent or the composition for  
regulating the amount of lipids of any one of claims 1 to 14, which  
is in the form of a pharmaceutical, medicated cosmetic, healthy food,  
food and beverage, feed, or bait.

25 16. The lipid-regulating agent of any one of claims 1 to 7,  
which is used for the substitution of lipids.